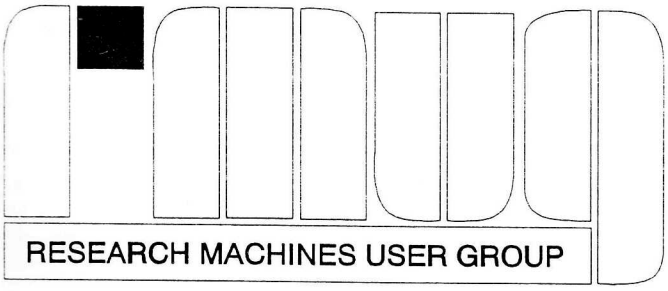
RM User

Volume 9:2
July 1994



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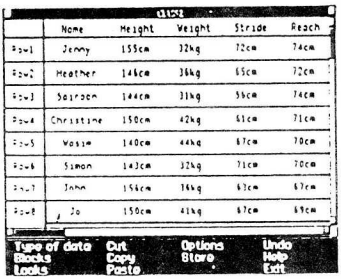

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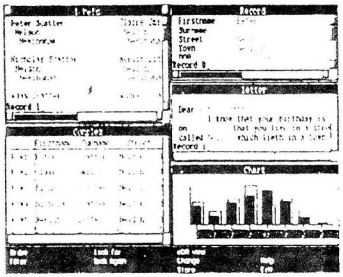

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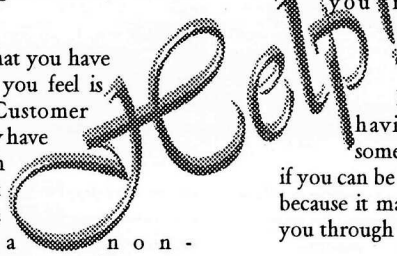
HelpLine

The User Group exists to help its members use the computers which they have.

The magazine is the main way in which we communicate with our members. If you find that it's not covering the areas you want to know about then phone someone listed at the back and let them know what you would like to see; the chances are that you won't be the only person who has the same needs.

Many of you (about 20%) are home users of Nimbus computers and we would like to help you. Do please phone any of the people whose numbers are listed at the back of the magazine and we will do our best to help.



You may find that you have a problem which you feel is too trivial for Customer Support or you may have a problem with which they can't help, perhaps because you have a non-standard setup for you equipment or you are using third-party equipment. This is the time when we may be able to help.

Remember that you can telephone the User Group members in the evening or at weekends when RM is shut (and, of course, you are just bound to hit problems). Also, RM don't claim to have great knowledge of products which they don't produce such as Excel or PageMaker. They can tell you how to install the packages on their equipment and how to get started but they cannot be expected to give you in depth support on using the packages. We, on the other hand, can. Most of the people whose phone numbers are listed at the back are using a range of software which is probably the same as yours on a daily basis. We may have met exactly the problem you have just encountered.

If you are in difficulty, please ring anybody on the Committee (numbers at the back) and you may also phone Tim Phillips on 0284 706623 (home number).

It is a great help if you are having a problem doing something using your computer if you can be next to it when you phone because it may then be possible to talk you through a solution over the phone.

If your problem is not urgent, or you think it may be difficult to explain over the phone, then do please write to the Editor with your query. I will either reply to you directly or pass your query on to a better person to solve it or publish your letter in the next magazine as a request for help.

The User Group is looking to restructure the support services we offer - should we distribute discs of worksheets produced by users? would you like the magazine to have a cover disc? would you prefer to receive the magazine on disc? Let the editor or one of the committee know your views.

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Deadlines for the next issues

RM User 9:3	12 September 1994
RM User 9:4	14 November 1994
RM User 9:5	16 January 1995
RM User 9:6	6 March 1995

The date shown above is the ***latest*** date for copy for the magazine. You will normally receive the magazine about 2-3 weeks after the date shown.

Missing a Magazine?

Back issues of the magazine are available from the editor. Write to RMUG, 46 Ollgar Close, Shepherd's Bush, London, W12 0NG for more details.

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News and Editorial

RM's latest schools' catalogue has just reached me with details of their new models and prices. Most impressive of the new machines are the Pentium based models. RM's prices start at about £2000 but it's worth noting that this is for a ready-to-run 60 MHz Pentium system with CD drive, sound card, 2Mb Windows accelerator card, huge hard drive, standard monitor and 8Mb of memory.

If you're like most people and that sort of machine is just for your dreams, then a more reasonable machine would be the Works Plus system giving you a 486SX with 4Mb RAM, 170MB hard drive, colour monitor and Microsoft Works 3 and Publisher 2 for just £859. A more substantial (but still reasonably priced system) is the Office Plus system - this includes a 486SX based machine with 8Mb of memory, 240Mb drive, colour monitor, Word 6, Excel 5, PowerPoint 4 and Publisher 2 (note that Publisher is an RM "added bonus" - it's not part of the standard Microsoft Office package). This lot costs just £1099 and comes in the new D style case which is deeper than the S series case, allowing up to 8 expansion cards.

Still on the subject of Microsoft Publisher, it is now included as standard in the Net LM 2 software library. In the past Aldus PageMaker has been included and while PageMaker is still very much an industry standard, Publisher allows users in schools to do all the important things which PageMaker can and more besides and all in a much more friendly fashion. I don't have details yet of upgrades for earlier network users but you should note that Publisher requires Windows 3.1

Most RM machines are now using 72 pin SIMMs (Single In line Memory Modules) for memory. When SIMMs were first introduced it looked as if it would be simple to buy them - all machines that took SIMMs would be able to use any manufacturer's modules. Of course such simplicity did not last but the current standard seems to be 72 pin modules which means it cheaper and easier to upgrade memory.

Talking First Word, a new version of First Word for Windows, has been released. This now allows pupils to hear what they are writing being read back to them as they work or to hear any word or sentence spoken at any time. Sadly the demonstration I heard sounded no better than the speech I heard with WordStar on an IBM PC back in 1986 but I'm sure that the Word demo must have been set up wrongly. The program costs £89 to Primary and Special Needs schools (which is an incredible bargain when you consider that you are getting the whole of Word for Windows with enhancements for £60 less than Microsoft would sell it to you) and if you want to see it before you buy then RM now have a large number of Window Box Partnership Centres around the country where you can go and see it. Contact RM on 0235 826000 for more details.

RM have also just released Colour Magic, a painting package specifically aimed at younger pupils. A problem with painting programs is that children sometimes just "play" with them and don't particularly learn anything new either about art or computers. Colour Magic comes with a curricular activity pack which contains lots of ideas designed to be used both on and away from the

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computer. The ideas cover areas such as symmetry, tessellation jigsaws, making coded messages and so on. The yellow level of Colour Magic is particularly suitable for younger children and allows them to select from a range of ready-made themed outline pictures such as a beach or cave scene. Colour Magic costs £79 and is suitable for use on almost any RM 386 or 486 computer.

At the other end of the drawing spectrum, Aldus have recently released a new version of IntelliDraw. This is a high end vector drawing program which is designed to be readily accessible to non-artists who need to draw. It achieves this by having a large variety of ready drawn shapes which can be dragged from the object browser and simply dropped onto the drawing window. Once a basic shape has been drawn it can then easily be added to the template library for later use. The program will import files from a huge range of other programs (including CorelDraw!) and export to a large number of programs, both vector and bitmap. IntelliDraw runs on a 386 or better computer with Windows 3.1 and 8Mb of memory. It has a recommended price of £150 with upgrades available from version 1 for just £50.

The Manufacturing by Design Programme was launched earlier this year by the CBI National Manufacturing Council to introduce young people to the computer aided design and its importance in manufacturing. The package includes a CAD software program called Designview and a resource pack containing teacher's guide and pupil tasks and tutorials, all clearly set in a manufacturing context. The whole package is free for use by your establishment for a period of one year but you can continue to use it after that date if you send back to the CBI some samples of pupils work. This seems like a good way of collecting and them disseminating examples of good practice. If you would like to get involved then write to John Harris, Manufacturing by Design Co-ordinator, CBI, 103 New Oxford Street, London WC1A 1DU.

Grass has been around since 480z days and is an easy to use data handling program and is now about to be released in a Windows version. It's designed to include all the current features of the Nimbus version but with added help, especially when creating new datafiles. There are also facilities to allow speedy entry of common answers when processing questionnaires and files can now contain an unlimited number of fields and records. The program will work with Windows 3.0 and 3.1 and is usable on both networks and standalone. Site licence pricing is very good at £39 for a primary school or £95 for secondary. If you are interested then contact Newman Software Limited at Newman College, Genners Lane, Bartley Green, Birmingham B32 3NT Tel: 021 476 1181 Grass for Windows is being developed as a collaboration between Newman College and Flo Computer Services who produce a range of utilities for school use - see their advert at the back of the magazine for more details.

I was lucky enough to attend the UK launch of dBASE for Windows recently - a rather more sophisticated data handling package than Grass. This is a long awaited package which looks as if it has been worth the wait. Borland claim that dBASE currently has nearly half the PC database market and they are hoping that the new ease of use which the Windows version brings combined with the power which has always been there

but has never been readily accessible, will keep them as database leaders. If you've seen any of the newer Windows databases such as Access then you'll have a good idea of how the program looks but somehow much of what it does seemed even more intuitive than Access. Previously working in dBASE has been very difficult without programming (except to do the simplest tasks) but now you can drag things around the screen and then have the program right the code for you. If you then edit the code the screen design will change to reflect this - Borland call this "two way tools" and are very proud of the idea - it certainly makes sense. One of the good things about dBASE was always that for some things working in command mode (at the "dot" prompt) was very quick and easy. For example, the User Group membership records are stored in dBASE and to find out how many members we have just means loading the package, typing *count for renewed* and then reading the answer. In Access it's much more convoluted and takes several times longer. dBASE gives you both approaches. If you are happy with working in Query windows then you can do this, just like Access, but if you know the command syntax you just click on the magic lantern (joke: the genie asks "What is your command" - clicking on the lamp gives you a command window!) and type in your command. One of the other special things seems to be the basic machine on which you can run dBASE; Access 2 now needs a *minimum* of 8Mb and prefers 12Mb and a 486 but dBASE will work with a minimum of 6Mb and prefers 8Mb, bringing it back into the realms of the possible for most users. There is also a DOS version of dBASE V available but this also needs a 386 or better processor with 4Mb of memory. dBASE is being priced at about the same level as Access so it should be in with a good chance in the market. As ever, Borland have very competitive pricing for education - contact them on 0734 321150 for details of the Scholar program.

Also released by Borland is Report Smith which is designed to go one step further in report writing than any other database program. It will take data from just about any source (including non-PC sources) and allow you to present it attractively and clearly. Watching it in use was impressive - tasks that seem easy in Access but are just time consuming are done automatically and even jobs which seem impossible in any other package are done relatively easily with Report Smith. It costs just £70 at standard prices and must be worth a try if you've ever tried to produce a report which looks good from something like Excel!

For World Cup enthusiasts, Attica have released 'The Story of the World Cup' on CD ROM. It provides a huge database detailing all the players and games in the World Cup finals, 45 minutes of video clips plus much more. It costs £39 and Attica are on 0865 202735

New Multimedia have announced reduced prices for the Times on CD ROM and now include a free site licence in the schools' price (as the Guardian has done for some years)News Multimedia are on 071 782 3982.

The Multimedia User Group is based at Hurstpierpoint College, Hassocks, West Sussex, BN6 9JS. They have just produced their first Windows based newsletter. Membership costs just £20 per year so if you'd like to join and find out how a school can offer its own GCSE in Multimedia Studies then get in touch with Richard Cooke - please mention RMUG if you do contact them.

Lego Dacta Control Lab: the facts . . . .and lots of opinions!

J Buckley

We are a school using the Lego Dacta Control Lab on an RM network. We started a new Control course using the Lego Dacta kit in September 1993. Lego Dacta is an improved version of Lego Technic. There is some controversy surrounding the use of this new Lego system. From our Faculties' point of view, the bottom line was cash. It was cheaper to equip a room with the Lego system than a competing system such as the Fisher Technic kit. Comparative costingFisher Technic have produced a modest 'Kickstart' kit at £49.50. It includes a base board with a number of sensors, traffic lights and a sliding door. It has the advantage of being incompatible with toys the students have at home (possibly reducing the chances of pilfering), it covers the requirements of Control and doesn't fall apart as easily as Lego. It can be connected via the 'Smart Box' interface to the marvellous Economatics software called Logicator. Logicator allows one to draw a flow diagram and, providing it is logically correct, drive the equipment connected to the computer. Sadly this software will not drive the latest Lego B interface. The Economatics intelligent interface called 'Smart Box' is an excellent 'all singing, all dancing' piece of equipment but at £275 a go it becomes expensive equipping a room. £3077 fully equips 10 workstations with Lego ControlLab, assuming a spare serial port is available on each workstation.

To fully equip 10 workstations with the minimum requirements of the Economatics interface and the Fisher Technic 'Kickstart' would cost £3245.

The Kickstart kit looks inferior next to the abundant parts supplied with the ControlLab sets.

Other advantages:

Lego Control Lab is superbly presented; the curriculum materials are well prepared, there is an instructional video, the interface is as delightfully intuitive, the connecting plugs are relatively easy to use, the range of sensors presently available is limited to four but sufficient for most needs. The excellent presentation helps motivate the students. I feel one of its big plus points is that it is relatively simple for a non expert to teach.

Some disadvantages:

Bearing in mind the advantages (particularly its lower cost and ease of use) a few negative things need highlighting. The software was originally written for an Apple. The feel is slightly different to a Windows application. In fact it runs straight from DOS. The software is at present unreliable on a networked system (we are using RM Lan Manager 1 and Windows 3.0). It runs out of memory on a 4 megabyte machine and is prone to crashing. Managing sets of Lego requires careful and thorough organisation. It might seem a trivial thing but unpacking and sorting a new box took at best fifteen minutes a time. There were minor problems with some of the equipment, some components missing, one sensor has failed. No doubt there are many Lego freaks around but there are also many who aren't used to construction kits and many who have limited experience of mechanisms. These sort of people have problems with using Lego, and are in many cases stuck if the suggested test rig falls apart. Having a variety of classes using the same kit is a major problem. I have only occasionally

allowed unrestricted access to the main set, rather supplying a box of components that is ready to build into a pre-determined model.

Logo

The system uses Logo. The main difference between RM Logo and Lego Logo is that the turtle graphics commands have been removed from the Lego version. This makes progression awkward. I find Logo a 'pig' of a language to work with and there are limited instructions with Lego kit on how to use it. There are examples and a glossary of primitives supplied. It reminds me of trying to write a letter in a foreign language using a dictionary. In many cases the students haven't got the time or ability to program in Logo to a sufficiently advanced level to go far beyond the suggested models. Finally, whilst there is plenty of mileage in the Lego system at Key Stage Three, for anyone wanting to progress into 'real modelling', such as for a GCSE project, the Lego system does not allow it. Lego components can only be used with the Lego interface.In summary, the major problem for me is its instabilty on the network. Its main advantage is the excellent presentation and attractiveness to the students and teacher.

At the moment we have two Smart Boxes in Technology and use Logicator - it's OK but it's too expensive to buy more sets. What are you doing? - do let us know.

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The Performance Tables 1993

Hugh Wilding

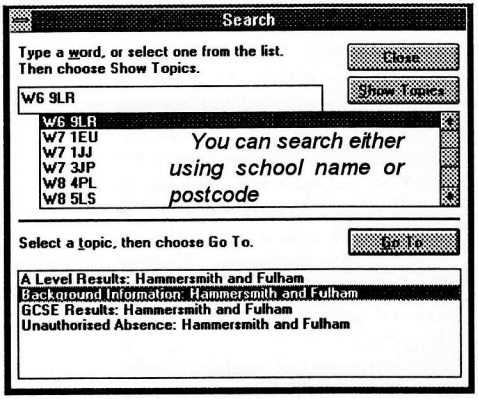
Remember last summer's GCSE & A-level results? The Department for Education (*who they? ED*) circulated the first performance tables last Autumn. At the time, a promise (threat?) was made that these would also be circulated electronically.

And so it has come to pass...

Basics

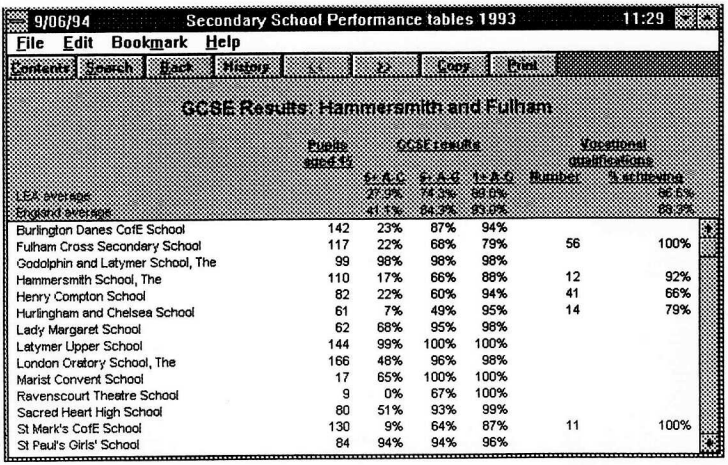
The School and College Performance Tables 1993 come in a three disk set, freely copiable "for non-commercial educational purposes only". Further investigation (well, the label on disk 2, actually - there is no READ.ME file) reveals that the tables can only be installed on a PC running Windows 3.1 (or higher) and require between 1.5 and 5.5MB of disk space, depending on which tables you select. The installation routine works from within Windows and provides the expected prompts (eg. which directory to install to, which combination of tables to unpack).

On completion, you will find a program manager group created, imaginatively named "Performance Tables 1993". If you opted for the full set, there will be two program items, each with a snazzy DfE triangle icon. The first is for Secondary Schools (ie. GCSEs), the second for all 16-18 age group Schools and Colleges (A-Levels).



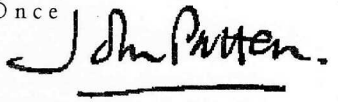
Still waters...

Aside from the politics, the tables are noteworthy for three points. Firstly, the information is presented in Windows



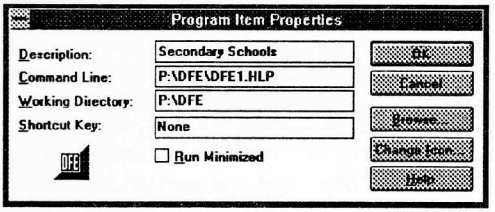
	Pupils aged 15	GCSE results			Vocational qualifications	
		5+ A-C	5+ A-G	1+ A-G	Number	% achieving
LEA average		27.3%	74.3%	98.0%		96.5%
England average		41.1%	84.3%	95.0%		89.3%
Burlington Danes CofE School	142	23%	87%	94%		
Fulham Cross Secondary School	117	22%	68%	79%	56	100%
Godolphin and Latymer School, The	99	98%	98%	98%		
Hammersmith School, The	110	17%	66%	88%	12	92%
Henry Compton School	82	22%	60%	94%	41	66%
Hurlingham and Chelsea School	61	7%	49%	95%	14	79%
Lady Margaret School	62	68%	95%	98%		
Latymer Upper School	144	99%	100%	100%		
London Oratory School, The	166	48%	96%	98%		
Marist Convent School	17	65%	100%	100%		
Ravenscourt Theatre School	9	0%	67%	100%		
Sacred Heart High School	80	51%	93%	99%		
St Mark's CofE School	130	9%	64%	87%	11	100%
St Paul's Girls' School	84	94%	94%	96%		

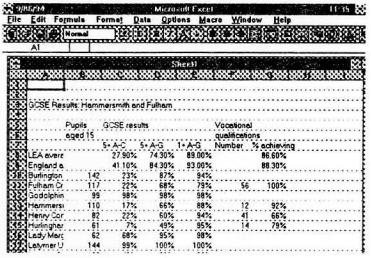
help file format. This has actually been done well, even if you ignore the Citizen's Charter motif and John Patten's scanned signature. Using the help engine makes sense since there will already be familiarity with its basic use. Once



in the search for relevant information, the tables remain uncluttered because all the address information for each institution is relegated to "hot spots" associated with the name.

Secondly, because of the use of the Windows help engine, any user can access an enormous amount of real data for statistical analysis etc. Simply click on copy and the table for the area being searched can be pasted into a spreadsheet like Excel for further work. Sadly, this does not extend to the address information.





Thirdly, despite what it says on the label, these tables can go on a network and do so easily. What is more, that network can be RM Net 3.x with PC186s running Windows 3.0 and Excel 2.1!

Networkability

For this, install the Tables on either a standalone machine (not necessarily RM) or a network station that has booted locally from a hard disk and not from the network - I was unable to install the tables to the local hard disk of a network station that had booted off a network. The installation routine will create a directory C:\DFE in which there will be two help files and one icon file. These files require copying to a public area on your network, say M:\PUBLIC\DFE and making read-only (if you are using Net LM then a suitable directory would be P:\LIB\DFE). If you are already offering Windows 3.1 to your users (Net LM 2, adventurous Net 3.1?), all that you now need to do is to set up an appropriate program group and items, referring to your standalone installation for guidance as to the properties of the group and items..

If you are still stuck with Windows 3.0 (Net LM 1.x, Net 3.x), then in addition to the above, you will need to take a copy of the Windows 3.1 help engine. As this is called WINHELP.EXE in both versions, rename your copy WINHLP31.EXE before installing into M:\PUBLIC\WIN or whatever is your network windows directory. Install your program group/items in the normal way for whichever users you decide. Because Windows 3.0 is limited to a single line for program descriptions, I shortened mine to "Secondary" and "16-18 Age Group" rather than three liner of the originals. A typical command line will then be WINHLP31.EXE

P:\DFE\DFE1.HLP. Finally change the icon to P:\DFE\DFE.ICO et voila!

I have used the Windows 3.1 help engine with other help files within Windows 3.0 on a Net 3.1 network and I understand that RM themselves issued it as part of an earlier LM upgrade so I cannot imagine too much fuss being made about such an abuse of copyright!

(Editor's note: You may find that you already have the newer help engine; quite a few applications install it automatically)

Further copies of these tables can be obtained FREE OF CHARGE by writing to the Department for Education, PO Box 2193, London, E15 2EU.

Shorts

The CD revolution rolls on! Subscribers to Personal Computer World have now been offered a monthly CD in place of the freebie floppy. Will it mean a slimmer copy with all the advertisements moved across? The recent issues of PCW have been obese to say the least. Another who may be tackling obesity is RS Components which is sending out its catalogues on CD from July.

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NET 3 IS NOT YET DEAD!

David Thomas

This article started life as a tongue-in-cheek response to the plethora of RMNET LM this, RMNET LM that and no doubt, a bit of RMNET LM the other articles published recently. Of course we all want to find out as much as possible about any new development and particularly a network system but I feel that Net 3 has been side-lined.

'My' (its very easy to get over-possessive, isn't it!) network started life in 1985 with NET 1, quickly upgraded to NET 2.0 with a PC 20 server and 11 186 stations on 1 ZNET card. Funding in the late eighties was pretty dismal but with enormous support from parents we eventually graduated to Net 3.0 with a VX 386 server and a total of 20 186 stations on 2 Znet cards.

Shortly after, we started to buy a few Ethernet M series stations to allow certain applications needing MCA cards to be used. Things were going fine until NET 3.1 arrived. I was keen to use it to improve security - many of our 186 stations were only 0.5 Mb and to allow packages like PC PAINT to work, all students had access to DOS. This made life tranquil (see later!) but I thought that preventing students from renaming the server's winchester to rude names would be sensible.

With almost all stations being 186's on Z Net, Net 3.1 was an unmitigated disaster, it took about 10 minutes for all the stations to load Windows, then to dump it all to load DOS applications like FLEXIWRITE. Stations would crash, leaving 1/2 Mb hidden files in user's areas, which NETDSK can't see or delete. This has left me being a very unenthusiastic WINDOWS user. In fact, the only thing I think WINDOWS is good for is changing the name of directories (see above), any other management task I think I can do with DOS and maybe the odd Batch file - remember them? To solve the problem of Windows being an unreliable front-end, I reverted to the old blue screen menus, even running Windows from it with no problems.

I then made the mistake of being at the forefront of the introduction of networked CD ROM's and met all sorts of problems. I adapted the CDROM loader batch file to act as the Public front-end so that CD's run directly from it, or Windows is run (just for Windows applications) or one of two blue screen menus, one for normal DOS applications and one for subject-specific applications, eg Astronomy programs for Physics, Sage software for Business Studies, Fun With Texts for languages. (I prefer this to running menus from menus as student get fed up repeatedly pressing <F9>.)

The number of stations grew to about 30 (on 2 Znet and 2 Ethernet cards) with a gradual slowing down of the network. In April 1993 a windfall of 10 S series 486 stations arrived (totally unconnected with me joining the Finance committee!) and the network became really slow, taking about 30 minutes for all the stations to boot up, log on and run a Windows application like Excel. I tried to get another Net 3 server, to be told by Sales that 'we want you to buy LM' but after a fair amount of pressure, RM agreed that a new NET 3 server was needed for those who like me, could not see LM as a realistic option for several years.

I had hoped for a Systembase 486 66MHz with 1Gb and loads of cards but after lots of deliberation, RM have

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produced a standard S series 486 25 MHz SX with 340 Mb (and only support for Ethernet) as mentioned in May's magazine. (In my opinion, RM have always supplied under-powered servers, not catering for the special needs of multiple frequent log-ons, prevalent in education.)

We have trialled one since Christmas, and found it an enormous improvement, not least because it has doubled the hard disc capacity. It has three Ethernet cards with routing. I plan to get a third and to split my users across them, having the same software on each server as I'm getting close to 48 stations now (still only 14 non 186 machines!) All users have access to the same printers, one on each server, this seems to work well as the sluggish times are when classes log on which is not when much printing is likely.

At the minute, it looks as if I'll stick with Net 3 for the following reasons:

1. Whilst most of my stations are 186's LM version 1 seems a waste of time and version 2 does not support them. The lack of support for CD's on PC186's on LM is an issue as we use TOPCLASS CD Maths across the network.

2. The wonderful software library with LM mostly won't run on 186's.

3. At the minute all that I want to do can be done in DOS applications plus Excel, Oriel/Superbase and Pagemaker, all of which can work on 186's.

4. My job list of programs to install/ modify/fix is still extensive!

5. I don't have the money (should this be No 1.?) 10k for the system plus 3k to commission and then 2k per year support. Comments made in Volume 8:5 about paying for things as intangible as support do apply.

6. I think I can squeeze some better performance out of Net 3 by optimizing harddisks, cables and cards, getting users to log onto stations booted by their server etc.

7. I'm fairly anti-Windows in general, many applications are crudely written and hideously slow. Compare Europe in the Round CD which is slower than a penguin reading braille (it seems to copy from CD to hard disc and then read it) with DOS applications like Flexi* which are quick, elegant and functional.

8. I object to doing things many times, eg adding an application for each of 8 groups, on 186 and again on higher machines and then again on 2 or 3 servers, is really tedious.

9. I'm not totally sure how long the lifetime of LM is going to be. In particular I don't know if my brain (or wife) can tolerate me learning a new network system from scratch.

I would be most interested to be told I'm wrong about any of the above, but in the meantime I'd like to suggest that those of us stuck with NET 3 or 3.2 as the latest version is known should continue to provide support for each other. The LM addicts seem rather busy with their own problems but they have probably all gone through and solved the same ones as those I'm currently stuck on. My difficulty is that the more I learn, the more I discover I don't really understand.

I suppose I really want a detailed training manual, presumably the sort of thing they give new recruits to Technical Support.

I would like to share some thoughts about NET 3 problems and security:

Serial printers on VX servers

Due to a bug in DOS? serial printers will cause the server to hang up if they are offline/out of paper when a print job is sent. This is a pain! Solution is to wire pins 2 and 7 of the serial plug together. (Thanks to Richard Bignell) (or go for a printer server)

Magic I/O port

Attempts to use this as a second parallel port instead of the COM1 which is very slow caused the VX server to hang up unpredictably. My first solution was to set up an AX as a print server as per Volume 7 of RM User but note that there are some mistakes in the listings given. Second solution, get a new S series server!

Depending on your printing requirements there are three options:

Put the printer(s) on the central server. This works well if you have few users doing mainly text printing but can clog up the server otherwise.

Use RM's remote printing software. This leaves the print queues on the server, ties up a station (which can be a PC186) but does allow the printers to be anywhere on the network and allows up to three printers to work simultaneously (rather than sequentially which is the case if they are on the server).

Set up a machine as a dedicated print server. This takes the load off the central server but has the downside that you still get sequential printing if you have more than one printer.

Printing to a HP1200C

Users sometimes get large sections of Newspa pages as solid black. I had thought it was because they presses <ESC> whilst sending the file but that isn't so.

Transferring files between servers

Set up a temporary share at the new server eg SHARE O=C:\ /RWCDA (no need to reboot)

At a station logged onto the old server type USE I: \\servername\O to copy files to I:. The easiest way to transfer files of some users in a group is to run a batch file as below:

```
rem trans.bat
rem requires two parameters,
  the group and userid
rmtree copy k:\%1\%2\*.*
  I:\%1\%2
rem now deletes the original
  file and directories
rmtree del /h /r k:\%1\%2\*.*
```

I was moving files from a second winchester, hence the K: rather than m:

now typing `TRANS 93 SMITHN` will copy all of SMITHN's files in group 93 (year of entry) to the new servers M:\93\SMITHN and then delete the original ones.

Pressing <F3> repeats the last line typed and so allows the userid to be altered easily - easy if you do it in alphabetical order. (I have split the school alphabetically, A to K on one server and the rest on the new.)

Note that this share should only be set up while you are working - type SHARE O /Delete at the server to delete it as soon as you are finished to prevent hackers using it!

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Clip Art for Pagemaker

We have just bought the BITFOLIO Cd from Simmnetts. This contains 2000 very good colour images. Most are A4 in size so need to be reduced for most applications. Some of the images and backgrounds are bigger than the 60kb the CGM importer can handle, is there a way round this?

Unfortunately this limit at about 64kb crops up in all sorts of applications and may be unavoidable. The advantage of the CGM format is that it is a vector format so pictures scale without becoming blocky. PageMaker will also import a range of other files; it might be worth investigating a program which will convert from CGM to (say) WMF to see if PageMaker copes better with thos files.

Memory problems on S series 486's

Why do S series 486's boot up so slowly and why have they so very little memory on Net 3? I know really but why are the drivers so big? The M series 386's were the best machines for memory (after the 186's of course!). It's a shame when progress is so regressive.

I'm still miffed that I can't get a S series 4Mb 486 to run PC Paint when I could with a 512 Kb PC186. The 486 will run PC Paint if you rem out the mouse driver but the package is then a bit limiting. TS wont support PC Paint on anything above a 186 but it works perfectly on M series (but won't print out directly - we use Image Management which works very well to a HP 1200C)

The M-Series computers (using the IBM designed Microchannel Architecture) were excellent in many ways but sadly too few other companies made MCA designs which made it very expensive to produce the computers. The S-Series (and all subsequent computers from RM) are based on the ISA design which has a slower bus and less upper memory available. This is not RM's fault but it's just annoying that they used to sell a computer which had excellent memory management and now they don't!

We use Omnigraph a fair bit in Maths, it works fine in the 186's but not on the 486's.

SPA produce a version of Omnigraph specifically for IBM type machines which does work well on the S-Series machines. If you've never used it, it's a program which allows you type in mathematical functions which are then graphed. SPA are on 0684 833700.

I'm planning to have two networks, one of 186's running Net 3 for DOS applications and another network, possibly Novell, for Windows applications.

Security

Well its a joke really, isn't it. I have quite a lot of proficient debuggers, as I call them, mostly in the upper part of the school, but even new Year 8 students have sussed out that access to DOS and therefore those games I spend so long trying to stamp out (Worm, Lemmings, Slicks etc) is easily achieved simply by going into a word processor, creating a file containing COMMAND and saving it as PRINTER.BAT or CHKMODE.BAT or FRIEZE.BAT (used in PCPAINT). Of course I delete users BAT files on Logon and as they come out of wordprocessors but it does not take them long to suss out how to use BBCBASIC to create such files automatically. With hundreds of users, I'm finding it a tiresome task. Even

adapting the path to put P and Q first as users log on does not seem to stop this

(I believe the solution is to DOS-proof all batch files by making commands specify P or Q and/or add the .EXE extension.) This is time-consuming! If BAT files are run from Windows they you can't put the P: in front for the command line entry.

The most serious breach is the ease with which students can get to the virtual boot drive on the server. My mistake was to create an Ethernet boot disc for my 386 stations to maximise memory which was lost when the S series stations needed a standard MSNET.INI. Sadly, the USERS.NET encryption is not very good, one student can decode it in his head! (Most mortals at least need a hex calculator).

I have one BBC Basic enthusiast who has created a Basic program which accurately re-creates the Network log-on screen. He leaves it running to trap unwary users who try to log on. The program stores the ID and password and then reboots the station. My technician was caught out, compromising network security, before I applied RESTRICT to the programmer.

I have some software which I can only get to run by putting them into a shared area, called S: (McGraw Hill Science and Technical Reference, Zyzomys, Radiation Game, At Home in Wattville) Though this is useful for sharing files, it is the perfect place to stick games, finding and deleting 10 copies of SLICKS in hidden directories is a good way to save several MB. I have tried a batch file which deletes all files and then copies them back from P: but my patience with S: is wearing out!

David Thomas works at Burnhan Grammar School Tel: 0628 604812 Fax: 0628 663559

I have enormous sympathy with David's position (and that of all the others who know that PC186s and Net 3 deliver most of what they want to do but keep coming up against major obstacles to progress. Many of the problems which David describes are not RM's fault; for example, MS Net is inherently insecure. If you know the share name and password for the root of the server's hard disc then there is no check made on whether you are allowed to be there. Lan Manager is secure. If the manager says that user SMITHN is not allowed to read a file then that user ***cannot*** *read it.*

Like most users I want RM to continue to be a successful company and for this to happen they need to make sure that their costs are kept in check. Unfortunately it has now reached the point where supporting Net 3 has reached the point where it is costing a large amount of money and bringing in little or no revenue and so RM would like to migrate users to Net LM as soon as possible. To this end a number of offers have been made which help the move and, while they are probably good value, they do not help schools who have adequate computer systems which they simply want to expand a bit further. I can't offer any suggestions as to how to make this happen. I can't tell RM that they must develop Net 3 further; the potential sales are too small for it to make economic sense for them and I can't tell schools to just throw away all their 186s and other Z Net machines; the costs of replacing working machines are just too high.

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Sessions on managing and pupil proofing your standalone computer in the classroom; database design; CD ROMs; graphics; Net LM; desk top publishing; control; and on using RM Window Box, Access, Excel and Word for Windows amongst others. There will also be talks and presentations which should all help to ensure that *everyone* can follow a useful and stimulating programme of their choice.

Value for money is excellent and the cost is unchanged from last year. The rate for the weekend, inclusive of training, course notes and materials, certificate, single room accommodation with en suite bathroom and meals, is only £225 for RMUG members or £245 for non-members (inclusive of a year's RMUG membership). Places for day delegates (non-residential) at £75/£95 are also available, full details on request.

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If you would like further details of the group, a membership form and a free sample copy of the group's very informative magazine - RM User - then please write to the above address to ask for them.

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Net LM Letters, Hints and Tips

I tried to add an additional Truetype font for one user on Net LM 2. The user was unrestricted and was set to have INI changes saved. The problem was that additions to the user's win.ini file were not saved to their userwin.w31 file when they logged off with the result that the font was not available the next time the user logged on.

The solution is as follows:

1. Install the font and, if necessary, copy the file to u:\w31\system; use Edit Copy in notepad to copy the additional font information placed in the win.ini file during font installation (this will be pasted at stage 3)

2. change the default.wni section [MC Section] from Fonts=NotUser to Fonts=UC

3. paste changes in win.ini file (font information) into user's userwin.w31 file under the section [UC.Fonts] (the section may not be there; if so you must create it.

Thanks to Laura at Insite Support for the solution, Desmond Hamilton, Morrison's Academy, Crieff, Perthshire

When a user logs on the RMWNA program does quite a lot of work for an unrestricted user in reading information from userwin.w31 (userwin.ini for a Net LM 1 user) and copying it into win.ini. When the user logs off the process is reversed so that the file on drive N: is updated. The [MC Section] lists the sections of win.ini which should and shouldn't be copied - for example, the [devices] section is never copied because the printer information will depend on which station a user uses but other information is copied because it can safely be configured by the user. If you don't want users to add their own fonts then the RM set default is sensible.

Adding a large number of fonts to Windows can dramatically slow down the speed at which it starts and various operations run - the font information has to be kept somewhere in memory and this obviously prevents other programs from using the same memory. On a standalone computer having a large number of fonts can slow down the whole of Windows' working because directory searches take longer when there is a large number of files in a directory. I think that this is less of a problem with HPFS on the server but you should be aware of the situation.

One of the main reasons that I have been wanting to move to Windows 3.1 for over 2 years is the scalable fonts. I've investigated a couple of packages in the past but none of them have worked well on a network. Today I bought an old copy of Bitstream's Facelift which adds scalable fonts to Windows 3.0. It seems to work well on a network (although first access to a font is very slow) and I hope to report further on its use in the next issue. The only problem is that it may no longer be made - it has no real use in a Windows 3.1 world!

A PUBLIC Logon System

This note describes a simple system which permits multiple logons of single user ID such as PUBLIC without a password and where each PUBLIC logon has a personal work area. At logoff the PUBLIC users lose any work saved in

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their work areas.

Such a system allows the manager to permit access to the system to all users who do not have their own personal ID and work area. This would be useful for occasional users or users who have forgotten their passwords but need access to a computer before the manager has time to replace the forgotten password. Other public access IDs could be set up with specialised desktops giving access to specific resources eg information at a parents' evening.

For each station on your network set up the following environment variables:

```
LOCALSRV=1      'Use 1 for
SERVERX1, 2 for SERVERX2 etc

ANYONE=RM12345 'Use the name
that station uses for its
connection to T:
```

In Applications Manager create the following script saving it as PUBLOG.EXE (in P:\APPSTART):

```
if .%ANYONE%= .
  echo No public logon
  available
else
  chdsk T:
  do NetDisconnect N:
  do NetConnect N:
  \\SERVERX%LOCALSRV%\%ANYONE%
  chdsk N:
endif
```

In User Manager set up a new user called PUBLIC (or whatever) with no password and multiple logons allowed. For this user set up the logon program called PUBLOG.EXE. If you wish create a desktop for PUBLIC and amend the PUBLIC user's details accordingly.

You should now be able to have users logon at any station using the ID PUBLIC. When someone logs on as PUBLIC the program PUBLOG disconnects the user from their current drive N: connection and reconnects drive N: to the stations connection (ie same as T:). In this way each PUBLIC user still has a personal work area and can run the full range of applications without interfering with anybody else who is logged on as PUBLIC. At logoff the RM system deletes the contents of T: so if the PUBLIC user wishes to keep any work then access to a local floppy is required. I have been using this system for a year on NetLM 1.1 and it seems to function without problems using the software we have installed on our system.

Richard Naylor, Methodist College, 1 Malone Road Belfast

To save time, why not write an MTSL script which interrogates NETLIST.INI to find out which server and temporary drive share the station is attatched to - rather than having to add two environment variables for each station (rather tedious)?

NETLIST.INI can be accessed (by users) by making a connection to the RMBOOT share, but remember that you will need to give USERS:RX access to the file. However this does not provide any security risk as the connection is broken at the end of the MTSL script.

The Public Logon MTSL script would need to check if the user was logged on as PUBLIC (using %username%), and if they were then N: could be redirected as required.

Alastair Bloundele

The letter and reply were both taken from RM's bulletin board and are a good example of the sort of information found there.

Alastair's modification is elegant (but

requires a more complicated MTSL) and access to the boot area. (While logged on as Admin at a station you would type: net access o:\ /grant users:rx to give the correct permissions)

I would prefer to have a system where the name of the station was the same as the name of the share used for the T: drive. Station names have to be unique and are recommended to be no more than 8 characters long so this is possible and would have other advantages for me but I (like most network managers!) was persuaded to use sharenames based on the ethernet address.

I've had a problem with setting up a user with no password it was possible for anyone to change the password and this (unknown) password then becomes required - I solved the problem by making a user called Visitor with a password that everyone knew.

RMTREE has been available with RM networks for many years and has been a very useful utility with a few niggly problems - it wouldn't take certain valid filenames (those for PaintSPA pictures, for example, which start with a ` symbol) and it would delete empty directories that it found while deleting files - excellent when you want to wipe a disc but not when you are just deleting BAK files on the network. The good news is that there is now a new version available for download from the bulletin board.

If you're like me you have Sytos scheduled to run a backup every night but do you always check that it worked and that the Backacc process also took place properly? I sometimes forget but recently I noticed that my two VX servers (which are essentially identical backup servers) were behaving quite differently - Backacc on one of them took 1 minute but on the other it was taking about half an hour and the file Aclbakc.acl was much larger. Typing net access c:\ /tree > c:\perms.txt while logged on at the server created a long file listing all the permissions. When I looked at it I found that a large number of files (mostly in the public directory) had individual permissions set which I certainly had never intended to set. Removing these permissions got the Backacc time on this server down to 1 minute and the file sizes on both servers are now about the same. This prompted me to investigate the PDC where Backacc has been taking over 3½ hours to run. Here I found that thousands of files, mostly in user directories, had explicit permissions set - again for no apparent reason. Removing these took the Backacc time down to just 1½ hours. I don't know how the problem happened but it's prompted me to look more closely at some of the timed processes to make sure they are behaving properly! Incidentally, I first of all tried setting the net access command to take place overnight using at 04:00 net access c:\ /tree > c:\perms.txt. I came in the next morning to find that the file contained the line "The command completed successfully" and nothing else. If you want to redirect the output of an at command then everything after the time must go in quotes.

Finally PageMaker's spell checker has just offered me antihistamine as an alternative to netlist.ini and as I'm snuffling with hayfever at the moment it seemed apt!

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Software for Physics

David Thomas

Time-consuming as it is, network management seems straight-forward compared to advising staff about software (and providing training on how to use it as well as installing it).

It seems strange that whereas colleagues do not expect you to provide them with verb sheets or whatever for 'normal' teaching, get them near a computer and they expect you to provide sample data files, idiot guides and the rest.

If you go to a school/college, you can usually identify the subject specialism of the network manager just by looking at the server hard disc. As a Physicist, I have installed a lot of Physics software on my network and and I offer the thought below in the hope that a series of such articles may appear, covering most subjects.

In Y8 we use Excel to do volume and density calculations and Qwest for a materials database. We do make much greater use of subject-specific packages:

Electricity and Magnetism CD(Bradford Technology).

This is excellent, but it does need VGA graphics). It is easy to install and runs well on a network. The animated circuit diagrams are brilliant. I really bought it for Electromagnetism demonstrations eg motor and dynamo but it gets used by Y8-12. (I may buy ACE - Animated Circuits for Education as it allows the user to create any circuit but it is too expensive for a network.) My feeling is that this is the most useful package we have.

They also produce Earth and Universe which is fairly good and Energy Resources which I think is also worthwhile. Neither are as brilliant as E&M but they are cheaper. They intend releasing CD's on Forces and Waves soon, as long as they are not Windows based I'll buy them too. (I have a downer on Windows!)

For Earth in Space we also use ASTRO from Topalogica. Excellent for KS2 in particular but it does orbits rather well and is very cheap. (SPA also do one called Planets suite which I expect is very good.) Perhaps the best program is a shareware one called 'Computer Guide to the Solar System' which apart from defaulting to US units is excellent for KS4, including the life of a star which I did not know. It seems to be what ORBITS was based upon, same simulations eg egg dropping and guinea and feather etc. Flexidata comes with a rather good datafile on all the larger objects in the solar system, planets, moon and asteroids.

The best astronomy CD is REDSHIFT which is excellent for the enthusiast but runs a bit slowly, even on a 25MHz 486 with 4Mb

(The latest National Curriculum may remove Earth in Space from KS3 though.)

We have 'AT HOME IN WATTVILLE' which is a very good domestic energy program but needs shared access for multiple use.

Several years ago we installed Shell SOFTLAB 1 and 3 which I think are excellent. 1 is electrical, allowing investigations on fuses, resistance of wires etc and 3 is on energy, including passive solar design of houses, wind turbines and car efficiency. I have yet to assess whether computer such simulations can really be

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used as full SC1 investigations.

In Y11 and 12 we use the British Telecom software, Pulse Code Modulation and Signal Transfer. Both work well on PC186's but they are not mouse driven.

We also use the Nuclides database and the Radiation Game produced by UKAEA. These are useful for a quick treat/when lessons are disrupted by trips etc.

I have been looking for a decent Colour program and hope that the Bradford Waves disc will satisfy that demand. I trialled their first Electricity and Magnetism and was very disappointed in it, it was mostly pictures and had no textual information at all, the newer version is much better.

We did use British Gas's PIPE which is a very good simulation of gas flow, perhaps best of all as a very good example of programming in Turbo Pascal. Opportunity has decreased with other 'pressures' on time!

We also have the McGraw-Hill Science and Technical Reference Set which is really good for A level, particularly historical information on atomic theory and basic data on electronic devices. (We do the Electronic option for Nuffield Physics Research and Analysis, for which it, and the BT software are useful, but I am always on the look-out for other support material.) STREF performs whole text searches very slowly (15 minutes on a 486) but the hypertext linking is very good. Stations need some expanded memory to display the graphics and I must confess I have not yet got round to configuring the 486's properly. (The M series stations with 2Mb cannot have less than all the available memory configured as expanded, as far as I can see in PSETUP, which is why I have not done it before.) It will work across the network but needs shared access to perform searches.

(Unfortunately the M-Series design means that with 2Mb of memory on a 286 you have to allocate it to either Extended or Expanded; you can't have a mix. With 5Mb you can have both Extended and Expanded but it costs rather a lot of money to get there!)

Until now we have only had BBC computers in our labs, used for Dynamic Modelling System, Velanalysis, Nuffield Software and Harmony Software. We should be getting a multimedia 486 soon and hopefully will be able to run Highways of Power which needs Windows 3.1

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What software are you using to help with teaching Physics or other subjects? Write or phone to let me know because I would like to encourage users to share their experiences of software.

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Hints and Tips

When printing from Word for Windows it's possible for users to select the number of copies they want printing. This leads to people accidentally or deliberately printing many copies which are not needed. Fortunately it's very easy to change this.

Load Word and choose Tools Macro from the menu and click on the Show Commands button. A long list of commands appears - these are the commands which make up Word. Find the one which says FilePrint and double click it. You should now be in the macro editor with the following text:

```
Sub MAIN
Dim dlg As FilePrint
GetCurValues dlg
Dialog dlg
Super FilePrint dlg
End Sub
```

Essentially, when you choose File Print from the menu it sets up a dialogue box (called dlg here) and when you click OK it calls the internal FilePrint routine, passing it all the values which were set in the dialogue box. Adding

```
dlg.NumCopies = 1
```

immediately before the line starting Super will force all Print operations to print only one copy. (Note that this information is saved in normal.dot so on a network you must make sure that each user's normal.dot is updated for this to take effect)

The above works for Word for Windows version 2 - I don't have access to version 1 any longer but I know that a similar process can be used.

Spell Checking

If you have mixture of computers running Word version 1 and 2 on your network then it's convenient for users to have the same user dictionary for both versions. When you first use Word 2 to do a spell check you are prompted if there is no dictionary present and it is automatically created as custom.dic in the correct place. Word 1 defaults to using a file called specials.dic and does not put it in the right place. Instead you must explicitly create it, giving the full path name of the file from the root of drive N:. If you use the name custom.dic, however, then both Word 1 and Word 2 will accept this as their dictionary.

The name of the file used as custom dictionary is stored in winword.ini and, unfortunately, Microsoft changed the format of the file when version 2 was released. If you are using Net LM then you can edit the MTSL to something like:

```
switch %McType%
  case   M-Series
  case   X-Series
    addpath p:\rmlib\ww2
    cd p:\rmlib\ww2
    if exists n:winword.in2
 copy n:winword2.in2
 n:winword.ini
    if not exists n:normal.dot
 copy p:normal.dot
 n:normal.dot
    exec p:winword.exe
    copy n:winword.ini
 winword.in2
  default
    addpath p:\rmlib\ww1
    cd p:\rmlib\ww1
    if exists n:winword.in1
 copy n:winword.in1
 n:winword.ini
    if not exists n:normal.dot
```

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```
  copy p:normal.dot
  n:normal.dot
     exec p:winword.exe
     copy n:winword.ini
  n:winword.inl
endswitch
```

(Note that the lines starting `if exists` have split onto three lines but should be on a single line and similarly for the lines which start `if not exists`)

The idea is that each time Word starts the script looks to see if there is an appropriately stored ini file for the version of Word which is about to be run (Word 1 on a 186, Word 2 on all others) and copies it to winword.ini before running Word. On exit from Word this file is then copied back to the original name.

If you are using Net 3 then you could get hold of the MTSL system (which works perfectly well although RM don't include it as part of Net 3) or you could alter the batch file which starts Windows to do the same thing.

Access Reports

In school we use Access to hold all our pupil records and for most things its excellent (the only problems we have are with people who can't decide what information they want!). One problem I have had is printing mark sheets where I want to produce a set of names on the left and then a grid across the page - just like a mark book. The basic setup is easy, the problem comes when I try to make every fifth line appear heavier than the rest to make it easy to follow across the page. My solution works but is not elegant and I offer it here to stimulate thought on the matter!

In the detail section of the report put two lines, one of hairline thickness and the other two points thick. As you draw each line, Access will give them names - make a note of each name. Add an unbound field called dummy. Set its Control Source to `=1` and select **Over All** for its Running Total. If you don't want each record to be visibly numbered then set the visible property to false. Save your report.

Now you need to create a macro. Design a new macro and from the View menu choose Conditions. In the condition column enter:

Reports![*report1*]![dummy] Mod 5=0

(where *report1* should be replaced with the name of your saved report.) In the action column choose Set Value and in the Action Arguments section enter the item

Reports![*report1*]![*line1*].Visible

and in the Expression box enter True. (Replace *line1* with the name of the thicker line). On the next line of the macro type an ellipsis (...) and again choose SetValue from the list of actions. The argument this time is similar to the one above but with the name of the thinner line replacing *line1*.

The next pair of lines are the same as the top 2 except that the condition will say ..... Mod 5 < > 0 and the two line names are reversed.

Save the macro, calling it something like ShowLines. Go back to the report and bring up the Properties menu for the detail section. Find the property called On Print and choose the macro called ShowLines. Save your report and test it.

The idea behind the macro is that each time a row is printed it checks to see if the row counter is divisible by 5. If it is then the thick line is made visible and the thin line is hidden otherwise the reverse is done.

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Needed by several schools and individuals throughout the country: PC186 Colour monitors, 84-key keyboards, old steel mice balls, SASI cards. Please contact Stephen Sharrad, 10 Gainsborough Hill, Henley-On-Thames, Oxfordshire RG9 1ST or (0491) 577149 (home) if you have any of the items for sale or know where they can be found.

For Sale:

7/8 Citizen 120D/120D+ printers with serial interface and cable for PC186. The 120 is an Epson compatible printer which, although it takes standard tractor paper or A4 sheets, is much smaller than most other dot matrix printers.

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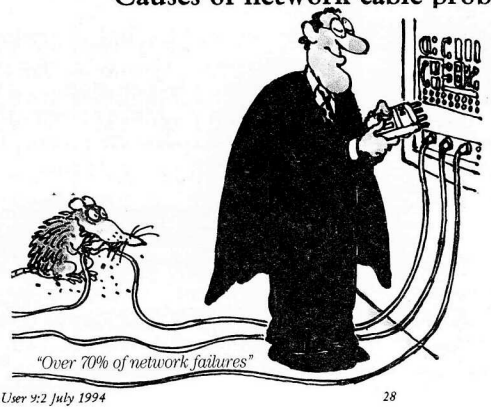
Causes of network cable problems - part 1



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Technical Tips

Stephen Sharrad

A short Tip Tech this month due to a current pastime that I have for urgent coursework!

Drive Cumana

Up until the last few years the company Cumana Ltd produced a range of hard disk drives, from the 40MB CRD40WE upto 100MB versions. These units (which are external to the PC186) use Quantum harddrives and have their own integral power supply. I have recently done a reasonable amount of work and have discovered a few tips. The first is a mechanical fault that may occur. The symptoms are that the harddisk is very slow and only functions with the external termination pack removed. This is because the termination pack relies on a +5v supply from the harddisk to power its resistors. Very rarely however the +5v may fail due to the fact that it is protected by a fuse on the harddisk which may blow. This causes the termination pack to function incorrectly but the harddisk may function slowly if it manages to receive the signals from the computer but has to frequently ask the computer to re-transmit the information due to distortion or attenuation (the idea of the termination pack is to put a load resistance on to the line, effectively drawing current to the end of the line and reducing reflections). The fuse (FS201 on the 40 MB Quantum drive) may be replaced but it is probably best to leave the replacing to someone qualified. My thanks go to Mr N. Koot at Cumana for helping to diagnose this problem. If anybody ever has any problems with their Cumana equipment then Cumana are normally very helpful and informative.

The second quirk is the fact that the Cumana drive is limited to a partition size of 32MB. Normally, RM's modified DOS 3.1 allows partition (or chunks of or complete harddisks) sizes to be up to 64MB but for there only to be one MSDOS partition on each harddisk. Cumana's CUMANA.SYS (CRM.SYS for short) however allows partition sizes to be limited to 32MB (as standard with DOS 3 on an ordinary PC) but allows more than one MSDOS partition to be created. However, it is theoretically possible that the partition size could be increased but you should never attempt to do this by running any of the RM harddisk Utilities (most of the time they come up with an error and do not write to the drive but occasionally under certain conditions it is possible) because CRM.SYS still has to be loaded (to map in other harddisks and to allow you to park the drive) and although CRM.SYS reports "No extra drives or partitions found" it still assigns there to be two partitions on the harddisk. Writing to one partition therefore corrupts the other partition as both partitions share the same data space.

In short, while CRM.SYS does not take full advantage of RM's operating system (100MB drives would still need partitioning anyway) there is nothing constructive that can be done about it. Another point is that CRM.SYS disables RM's WINCACHE utility. This is annoying as WINCACHE greatly improves loading times but I am looking in to other alternatives - more about this hopefully in the next magazine.

Excel Out

Many users of Microsoft Excel will be familiar with the idea of creating charts

and then pasting them through the clipboard into their documents. However, Excel 2 and 3 both tend to truncate or cut-off the last parts of strings or sentences of text in the charts. For example, a pie chart may have a legend attached. The word "Luxembourg" however appears as "Luxembo" - quite a serious error if you are trying to produce a quality document. There are two ways (that I know off) of getting around this problem. The first, obviously, is to produce the text of the chart in a different application - perhaps leave putting the title of a graph on until you get to the word-processing stage and and it on before the chart is inserted. You may also have to use a different application to produce your legends but this will not be sufficient if your legend is large.

The second way is much simpler and requires a lot less time. When entering in the data for the chart (on a worksheet) put at the end of each text cell several spaces - literally pressing the space bar several times (about 6 times; however if the current string is considerably shorter than many of the other strings in the same column in the chart then add more spaces to pad the string out to about the same size of the others). This means that while the legend may grow slightly in size usually a lot less (if not none) is lost during pasting to the clipboard. I believe otherwise the text is lost due to a slight incompatibility between Excel and the Clipboard.

(Another technique which sometimes helps is to choose Printer Fonts in the Format Font dialogue - Editor)

Help!

I have a list of several people/schools throughout the RM User Group who have recently contacted me, and who are after the following parts to make their systems usable. I would really like as many of you past/present PC186 users as possible to have a quick look through or sort out of any of your old parts or components - you may have some old gems hidden away! The parts that are most desperately required are 84-key keyboards for use with the PC186 (without any computer attached - spare keyboards used to be shipped with external harddisk units or you may have a keyboard with a system that no longer works). Also needed are the old steel mice balls found in the early PC186 mice. These are required because students occasionally remove the balls from the mouse. This not only makes the mouse inoperative but causes a severe amount of frustration due to the fact that no manufacturer (including RM) no longer supply the metal balls. Required also are PC186 colour monitors in reasonable condition. Many PC186 monitors are now almost 9 years old and have already exceeded their component design life. (I also need one these for my own personal use). Also required are PC186 SASI harddisk cards due to the fact that many schools are trying to optimize the performance of their PC186's by obtaining harddisks for them - for which they need a complete harddisk controller rather than a floppy-only interface.

If you have any of the above items (or anything else of interest) for sale or know of where they can be obtained please contact me on Henley (0491) 577149 or at the address listed under committee members in the back. Again, if any members have any technical problems which require solving please do not hesitate to contact me anytime.

Excel and Postage Stamps

Steve Rochford

If you regularly need to post letters and packets with a weight up to 400g then you need to either keep a large range of stamps (8 bands with a different price for first and second class gives 16 different values of stamp) or a smaller range and then work out the best way of combining them to give any of the values.

Using just 19p, 6p, 4p and 1p stamps it is possible to combine them to give any of the values needed from 19p to £1. The exercise is to devise a spreadsheet which will show the values needed and how many of each stamp are going to be used. You can then experiment with different numbers of each stamp to reduce the total number of stamps needed (for example, to produce a 25p stamp you could use 1x19, 1x4 and 2x1 or 1x19 and 1x6 - the latter is obviously better.

This can be used as the basis for an exercise in Excel. Given the basic grid shown below, the exercise is to:

First, enter formulae in cells G2 to G17 which calculate the value of the postage stamps entered in C2 to F17. This introduces the concept of absolute cell references. For example, the formula in G2 will be:

=C2*C1+ D2*D1+ E2*E1+ F2*F1

and this can then be copied down the rest of column F.

Second, enter a formula in column H which works out how many stamps have been used.

Finally it might be useful to enter a formula in column I to show if the value calculated in column G is correct - something like:

=if((g2=b2),"Correct","Wrong")

	A	B	C	D	E	F	G	H
1	Weight	(g) Price	19	6	4	1	Value	No. Stamps
2	60	19						
3		25						
4	100	29						
5		38						
6	150	36						
7		47						
8	200	43						
9		57						
10	250	52						
11		67						
12	300	61						
13		77						
14	350	70						
15		88						
16	400	79						
17		100						

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Your Magazine

I really do welcome items for the magazine from anyone. You don't have to be a great writer to send something in; send a letter or a short tip for the Hints and Tips pages, everything is welcome. If you want to phone and talk something over then please do; even if you aren't sure how to write something down then I can always include your ideas in Hints and Tips or as a plea for help; some of you will recognise your phone calls on the Hints and Tips pages!

I would be particularly pleased to hear from the people who are using RM computers at home; there are quite a lot of you out there. Some of you will be experienced at working with computers and I would be interested to know why you chose RM for home use. Others will have responded to RM's advertising, perhaps because your children use the same computers at school. How are you getting on with your new machine? Did you have any problems getting started? It doesn't matter if you still don't know the answer to the problem- this is how you'll find out - and it doesn't matter if you think that your problem was trivial; remember that there are many other people who are going to be in exactly the same position as you and will welcome the help that you can give.

If you are writing for me then the ideal is to send me a disc produced using Word or Word for Windows but I can cope with any word processor that runs on a PC or Nimbus (I think). If what you are sending is short then a letter on good old fashioned paper is fine. I can also accept articles left on the bulletin board - the easiest way to to do this is to prepare your article in a word processor and save it normally. You then send a short e-mail to me and attach your file to it when you are on-line. It's actually easier to do than to describe because the whole thing is menu driven.

Finally, we pay for published articles at the rate of £5 per printed page (although all payments are at the Editor's discretion).

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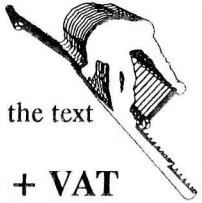

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